

Sup Jan 23, 2017

Work Order ID 154428

Tuesday, December 13, 2016 8:05:08 AM

647.1405
B-154428
REV. C

154428

Page 1

Item ID: 647.1405

Revision ID:

Item Name: Upper Cutter Assembly

Start Date: 1/9/2017 Start Qty: 1.00

Required Date: 1/16/2017 Req'd Qty: 1.00

Reference:

1
1

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: Process Plan: US Date: 16/12/13 Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
647.1400	C

110 Pick Kit 0.00

110

Packaging

Memo

0.00

Packaging

1X _____ 17/01/12

120 0.00

120

Small Fab

Memo

0.01

Small Fab

Assemble as per dwg and apply loctite 598 on all faying surfaces per note 2.

A/R RTV LOCTITE 598: 135385
exp. date: 04/18

1X _____ 17/01/18 DAS 36 9-89

130 QC5- Inspect part completeness to step on W/O 0.00

130

QC

Memo

0.00

Quality Control

1 _____ JAN 19 2017 DAS 36 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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				Lead hand / Supervisor Approval Verification																	
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OTHER : _____																					

Work Order ID 154428

Tuesday, December 13, 2016 8:05:08 AM

154428

Page 2

Item ID: 647.1405 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Upper Cutter Assembly
Start Date: 1/9/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 1/16/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Identify as per dwg & Stock Location: <u>St</u>	0.00							
140									
Packaging	Memo	0.00							
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND REV***								
150	QC21- Final Inspection - Work Order Release	0.00							
150									
QC	Memo	0.02							
Quality Control									

DAS
21
9-89
JAN 19 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
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Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Tuesday, December 13, 2016 8:05:13 AM

Page 1

Work Order ID: 154428

154428

Parent Item: 647.1405

647 1405

Parent Item Name: Upper Cutter Assembly

Start Date: 1/9/2017

Required Date: 1/16/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 16-11-15 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
NAS1149FN832P		Purchased	No				Each	2,081.000		6			
NAS1149FN832P									**			17/01/12	DAS 36 9-89
Washer													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				GA				449					
					M135058			449					
				ST260a				1500					
					M136182			1500		6			
				ST263				132					
					M135058			132					
MS27039-08-19		Purchased	No				Each	267.0000		3			
MS27039-08-19									**			17/01/12	DAS 36 9-89
Screw													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				GA				164					
					m135948			164		3			
				ST277				103					
					m136042			1					
					m136199			52					
					m136301			50					

Picklist Print

Page 2

Tuesday, December 13, 2016 8:05:13 AM

Work Order ID: 154428

154428

Parent Item: 647.1405

647 1405

Parent Item Name: Upper Cutter Assembly

Start Date: 1/9/2017

Required Date: 1/16/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L08

Purchased

No

Each

929.0000

3

MS21042L 08

Nut

17/01/12

DAS
36
9-89

Location

Loc Qty

Loc Code

GA

528

m135274

28

m135978

500

3

ST303

401

m135948

1

m136199

200

m136301

200

646.9703

Manufactured

No

Each

0.0000

1

646 9703 ✓

Cutter Sub Assembly

647.1514

Manufactured

No

Each

0.0000

1

647 1514

Upper Deflector

B 153313 ******

17/01/12

DAS
36
9-89

B 153323 ******

DAS
30
9-89

JAN 11 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

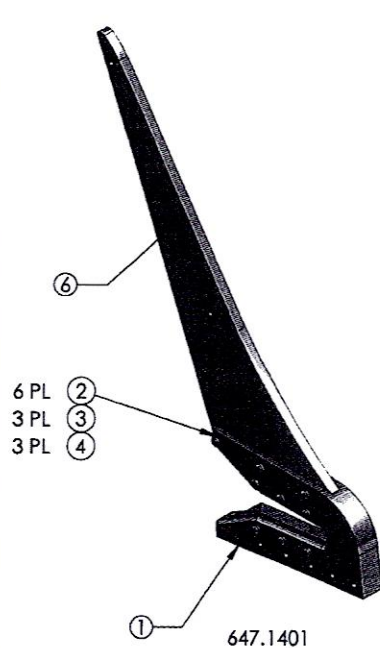
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:12.5%;">Skid-tube ☐</td> <td style="width:12.5%;">Cross tube ☐</td> <td style="width:12.5%;">Water Jet ☐</td> <td style="width:12.5%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																							
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OTHER :																																																															

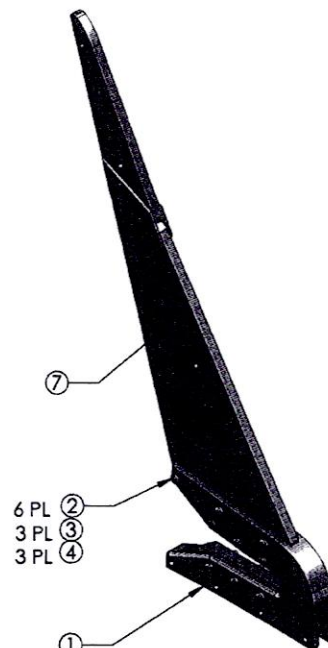
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NOTES:

1. IDENTIFY IAW MPP-120
2. APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 1, 6, & 7 UPON ASSEMBLY



647.1401



647.1402

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 154421

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	LAST PROTOTYPE REVISION: PR1		N/C
N/C	INITIAL RELEASE	06/15/09	P. BRAVO
A	INCORPORATED ECN'S 02962 & 03911	06/07/13	P. BRAVO
B	INCORPORATED ECN 05330	02/28/16	P. BRAVO
C	INCORPORATED ECN 05549	11/01/16	P. BRAVO

1	-	-	-	-	11	647.1514	UPPER DEFLECTOR		
-	1	-	-	-	10	647.1513	UPPER DEFLECTOR		
1	1	-	-	1	9	646.9703	CUTTER SUB ASSY		
-	-	1	-	-	8	646.9702	CUTTER SUB ASSY		
-	-	-	1	-	7	647.1501			
-	-	1	-	-	6	647.1510	UPPER DEFLECTOR		
A/R	A/R	A/R	A/R	A/R	5	601.2045	RTV, LOCTITE 598		
3	3	3	3	3	4	601.1541	LOCKNUT	MS21042L08	
3	3	3	3	3	3	601.2765	SCREW	MS27039-0819	
6	6	6	6	6	2	601.2764	WASHER	NAS1149FN832P	
-	-	-	1	-	1	646.9701	CUTTER SUB ASSY		
X						647.1405	CUTTER ASSY (UPPER)		
	X					647.1404	CUTTER ASSY (UPPER)		
		X				647.1403	CUTTER ASSY (UPPER)		
			X			647.1402	CUTTER ASSY (LOWER)		
				X		647.1401	CUTTER ASSY (UPPER)		
.1405	.1404	.1403	.1402	.1401	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.

QTY		PARTS LIST	
NEXT ASSY (S)		ORIGINAL DATE 06-15-09	
647.1300		DRAWN BY CHECKER P. BRAVO	
		DRAWING APPROVAL P. BRAVO 06-15-09	
		CONTRACT NO.	
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.01 2 PLACE DECIMALS ±.005 ANGLES ±.5°	
		3030 ENTERPRISE CT. SUITE A VISTA, CA. 92081 (760)-724-5300	
		CUTTER ASSY	
SIZE	GAGE CODE	DWG. NO.	REV.
B	07M26	647.1400	C
SCALE NONE		SHEET 1 OF 2	

DQA: _____ Date: _____



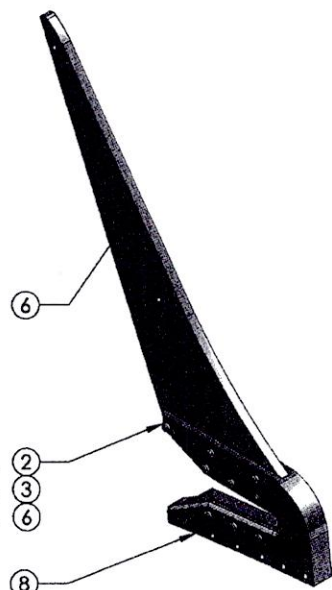
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

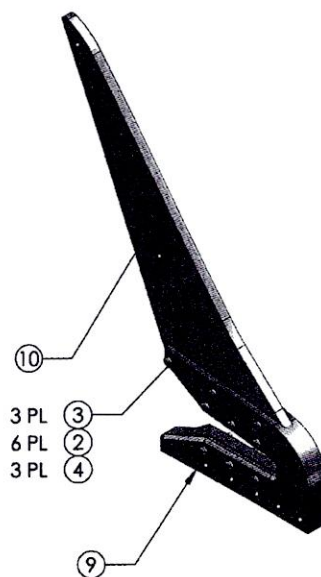
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Past Expiry Date ☐	Manufacturing Process ☐																																																														
Misidentified ☐	Past Due ☐																																																														
Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐																																																													
Bending ☐	Set-up ☐	Folio/Program ☐																																																													
Centre Not Concentric ☐	BOM/Route ☐	Grain ☐																																																													
Cracks ☐	Broken/Damage/Defect ☐	Weld ☐																																																													
Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐																																																													
Cuffs ☐	Contamination ☐	Out of Sequence ☐																																																													
Crushing ☐	Countersink ☐	Off-set ☐																																																													
Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐																																																													
Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐																																																													
Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐																																																													
OTHER :																																																															

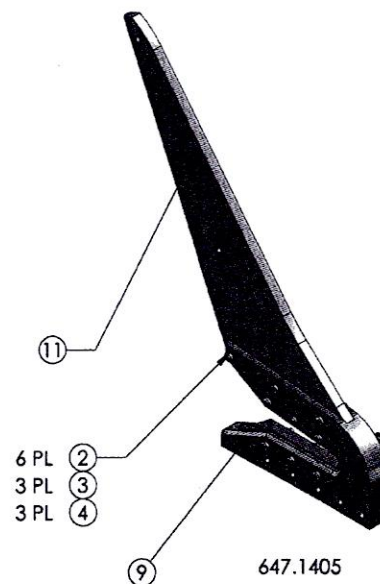
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647.1403



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647.1405

ORIGINAL DATE 08-18-09		DRAWN BY J. GARDNER		CHECKED P. BRAVO	
DRAWING APPROVAL P. BRAVO		CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.3°					
SIZE 8	CAGE CODE 07NM26	DWG. NO. 647.1400	REV. C	SHEET 2 OF 2	

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APICAL INDUSTRIES INC.
(DBA DART AEROSPACE)
3030 ENTERPRISE CT., SUITE A
VISTA, CA. 92081
(760)-724-3500

CUTTER ASSY

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					